

METHOD AND RELATED CIRCUIT FOR DETECTING BLACK FRAMES IN VIDEO SIGNAL

Abstract

A method and related circuit for detecting black frames, which are inserted between normal programs and commercial spots in a broadcasting video signal. For a frame in the video signal, representative pixels are selected as reference pixels according to their positions in the frame, and whether the frame is black can be determined efficiently according to statistical properties of these reference pixels. For example, pixels aligned in a diagonal of a frame can be selected as reference pixels to determine if the frame is black. Also, the invention applies to frequency domain video signals. Blocks are selected as reference blocks according to their position in a frame, and whether the frame is black is determined according to low-frequency components of reference blocks.